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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/579,348	KIM ET AL.	
	Examiner	Art Unit	
	KATHY WANG-HURST	4173	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 May 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-51* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-51* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 May 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *5/12/2006 and 1/21/2008*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 3-8, 10-11, 13-18, 20-21, 23-33, 35-39, 41-44, and 46-50 are rejected under 35 U.S.C. 102(e) as being anticipated by **Park et al. (US 7151756)**, herein after referred as Park.

Regarding claim 1, Park discloses a method for performing a handover from a WCDMA network to a CDMA-2000 network by using a dummy pilot signal, the method comprising the steps of:

(a) receiving a WCDMA **(col. 1 lines 22-24, asynchronous CDMA as a third generation system)** signal level measurement message at a multimode terminal **(col. 1 lines 54-59 report measured result received from an adjacent synchronous CDMA base station at mobile station; col. 1 lines 25-31 a mobile terminal communicating with the third generation system and second generation system therefore a multimode terminal)**, turning on a CDMA-2000 **(col. 1 line10-11, synchronous CDMA as a second generation system)** modem mounted on the multimode terminal **(col. 2 lines 40-41 establish traffic with synchronous DCMA, therefore must turn**

on modem in order to establish traffic) and transmitting a level value of the dummy pilot signal to a WCDMA system **(col. 1 lines 54-59 report measured result to asynchronous CDMA)**, upon detecting the dummy pilot signal above a prescribed level out of the WCDMA signal level measurement message **(col. 2 lines 21-25 report if the signal received is bigger than a predetermined value)**;

(b) determining whether to perform a handover or not based on the level value of the dummy pilot signal received from the multimode terminal **(col. 1 lines 59-61 handoff based on measured result)**;

(c) transmitting a handover request message from the WCDMA system to a CDMA-2000 system when it is determined to perform the handover **(col. 1 lines 59-61 transmit handoff request to synchronous CDMA base station)**;

(d) transmitting a handover command message from the WCDMA system to the multimode terminal **(col. 1 line 67- col. 2 line3 mobile terminal receives information from asynchronous CDMA base station)**; and

(e) allowing traffic to be switched to the CDMA-2000 modem of the multimode terminal **(col. 1 lines 66-67 perform handoff to the synchronous CDMA base station)**.

Regarding claim 3, Park discloses the method as claimed in claim 1, wherein the WCDMA signal level measurement message includes information on peripheral base stations which should be searched by the multimode terminal and information on the dummy pilot signal **(col. 2 lines 12-21 adjacent base stations)**.

Regarding claim 4, Park discloses the method as claimed in claim 1, wherein the dummy pilot signal includes a WCDMA pilot signal **(col. 2 lines 4-6 asynchronous CDMA pilot signal)**.

Regarding claim 5, Park discloses the method as claimed in claim 1, wherein the dummy pilot signal is transmitted from the CDMA-2000 system located in a border area between the WCDMA network and the CDMA-2000 network **(col. 2 lines 12-21 adjacent therefore border area between two systems)**.

Regarding claim 6, Park discloses the method as claimed in claim 1, wherein the dummy pilot signal includes a specific scramble code **(col. 2 lines 30-35)**.

Regarding claim 7, Park discloses the method as claimed in claim 1, wherein the WCDMA system includes:
a radio transceiver subsystem (RTS) for receiving the level value of the dummy pilot signal from the multimode terminal and transmitting the level value of the dummy pilot signal **(col. 1 lines 43-67)**; and
a radio network controller for receiving the level value of the dummy pilot signal from the radio transceiver subsystem, determining whether to perform the handover for the multimode terminal, and transmitting the handover request message or the handover command message **(col. 1 lines 43-67)**.

Regarding claim 8, Park discloses the method as claimed in claim 1, wherein the CDMA- 2000 system includes:
a base transceiver station (BTS) for transmitting the dummy pilot signal to the multimode terminal **(col. 4 lines 50-54)**; and
a base station controller (BSC) for receiving the handover request message from the WCDMA system**(col. 4 lines 50-54)**.

Regarding claim 10, Park discloses the method as claimed in claim 1, wherein, at step (d), when the multimode terminal receives the handover command message, the CDMA-2000 modem of the multimode terminal is turned on and a WCDMA modem of the multimode terminal is turned off **(col. 2 lines 38-41)**.

Regarding claim 11, Park discloses a method for performing a handover from a WCDMA network to a CDMA-2000 network by means of a WCDMA system for determining whether to perform the handover or not, a CDMA-2000 system for transmitting a dummy pilot signal, and a multimode terminal including a WCDMA modem and a CDMA-2000 modem, the method comprising the steps of:
(a) receiving a WCDMA signal level measurement message at a multimode terminal**(col. 1 lines 54-59 report measured result received from an adjacent synchronous CDMA base station at mobile station; col. 1 lines 25-31 a mobile terminal communicating with the third generation system and second generation**

system therefore a multimode terminal);

(b) detecting the dummy pilot signal from the WCDMA signal level measurement message and comparing a level value of the dummy pilot signal with a predetermined threshold value **(col. 1 lines 54-59 report measured result to asynchronous CDMA; col. 2 lines 21-25 report if the signal received is bigger than a predetermined value)**;

(c) turning on a CDMA-2000 modem and transmitting the level value of the dummy pilot signal to the WCDMA system, when the level value of the dummy pilot signal is larger than the predetermined threshold value**(col. 2 lines 40-41 establish traffic with synchronous DCMA, therefore must turn on modem in order to establish traffic) (col. 1 lines 59-61 handoff based on measured result)**;

(d) determining whether to perform the handover or not based on the level value of the dummy pilot signal at the WCDMA system **(col. 1 lines 59-61 handoff based on measured result)**;

(e) transmitting a handover request message to the CDMA-2000 system when it is determined to perform the handover at the WCDMA system **(col. 1 lines 59-61 transmit handoff request to synchronous CDMA base station)**;

(f) transmitting a handover command message from the WCDMA system to the multimode terminal; and (g) allowing traffic to be switched to the CDMA-2000 modem of the multimode terminal **(col. 1 lines 66-67 perform handoff to the synchronous CDMA base station)**.

Regarding claim 13, Park discloses the method as claimed in claim 11, wherein the WCDMA signal level measurement message includes information on peripheral base stations which should be searched by the multimode terminal and information on the dummy pilot signal **(col. 2 lines 12-21 adjacent base stations)**.

Regarding claim 14, Park discloses the method as claimed in claim 11, wherein the dummy pilot signal includes a WCDMA pilot signal **(col. 2 lines 4-11)**.

Regarding claim 15, Park discloses the method as claimed in claim 11, wherein the dummy pilot signal is transmitted from the CDMA-2000 system located in a border area between the WCDMA network and the CDMA-2000 network**(col. 2 lines 12-21 adjacent base stations)**.

Regarding claim 16, Park discloses the method as claimed in claim 11, wherein the dummy pilot signal includes a specific scramble code **(col. 2 lines 30-35)**.

Regarding claim 17, Park discloses the method as claimed in claim 11, wherein the WCDMA system comprises:
a radio transceiver subsystem (RTS) for receiving the level value of the dummy pilot signal from the multimode terminal and transmitting the level value of the dummy pilot signal**(col. 1 lines 43-67)**; and
a radio network controller for receiving the level value of the dummy pilot signal from the

radio transceiver subsystem, determining whether to perform the handover for the multimode terminal, and transmitting the handover request message or the handover command message**(col. 1 lines 43-67)**.

Regarding claim 18, Park discloses the method as claimed in claim 11, wherein the CDMA-2000 system includes:
a base transceiver station (BTS) for transmitting the dummy pilot signal to the multimode terminal**(col. 4 lines 50-54)**; and
a base station controller (BSC) for receiving the handover request message from the WCDMA system**(col. 4 lines 50-54 base station therefore must have a controller)**.

Regarding claim 20, Park discloses the method as claimed in claim 11, in step f), when the multimode terminal receives the handover command message, the CDMA-2000 modem of the multimode terminal is turned on and a WCDMA modem of the multimode terminal is turned off **(col. 2 lines 38-41 release traffic channel and establish a new traffic channel, therefore turn off/on modem)**.

Regarding claim 21, Park discloses A system for performing a handover from a WCDMA network to a CDMA-2000 network by means of a dummy pilot signal, the system comprising:
a multimode terminal for receiving a WCDMA signal level measurement message**(col. 1 lines 54-59 report measured result received from an adjacent synchronous CDMA**

base station at mobile station; col. 1 lines 25-31 a mobile terminal communicating with the third generation system and second generation system therefore a multimode terminal), turning on a CDMA-2000 modem embedded in the multimode terminal and transmitting a level value of the dummy pilot signal**(col. 2 lines 40-41 establish traffic with synchronous DCMA, therefore must turn on modem in order to establish traffic)**, when detecting the dummy pilot signal above a prescribed level out of the WCDMA signal level measurement message**(col. 2 lines 21-25 report if the signal received is bigger than a predetermined value)**;
a WCDMA system for receiving the level value of the dummy pilot signal from the multimode terminal**(col. 1 lines 54-59 report measured result to asynchronous CDMA)**, determining whether to perform the handover, and transmitting a handover request message or a handover command message**(col. 1 lines 59-61 transmit handoff request to synchronous CDMA base station)**; and
a CDMA-2000 system for transmitting the dummy pilot signal to the multimode terminal**(col. 2 lines 4-6 asynchronous CDMA pilot signal)**.

Regarding claim 23, Park discloses the system as claimed in claim 21, wherein the multimode terminal is capable of using both synchronous CDMA-2000 service and an asynchronous WCDMA service and uses at least two frequency bands **(col. 1 lines 7-15)**.

Regarding claim 24, Park discloses the system as claimed in claim 21, wherein, when

the multimode terminal receives the handover command message, traffic is switched to the CDMA-2000 modem of the multimode terminal **(col. 2 lines 36-47 traffic switching)**.

Regarding claim 25, Park discloses the system as claimed in claim 21, wherein the WCDMA signal level measurement message includes information on peripheral base stations which should be searched by the multimode terminal and information on the dummy pilot signal **(col. 1 lines 43-67)**.

Regarding claim 26, Park discloses the system as claimed in claim 21, wherein the dummy pilot signal includes a WCDMA pilot signal **(col. 2 lines 4-11)**.

Regarding claim 27, Park discloses the system as claimed in claim 21, wherein the dummy pilot signal is transmitted from the CDMA-2000 system located in a border area between the WCDMA network and the CDMA-2000 network **(col. 2 lines 12-21 adjacent base stations)**.

Regarding claim 28, Park discloses the system as claimed in claim 21, wherein the dummy pilot signal includes a specific scramble code **(col. 2 lines 30-35)**.

Regarding claim 29, Park discloses the system as claimed in claim 21, wherein the WCDMA system includes:

a radio transceiver subsystem (RTS) for receiving the level value of the dummy pilot signal from the multimode terminal and transmitting the received level value of the dummy pilot signal **(col. 1 lines 43-67)**; and
a radio network controller for receiving the level value of the dummy pilot signal from the radio transceiver subsystem, determining whether to perform the handover for the multimode terminal, and transmitting the handover request message or the handover command message **(col. 1 lines 43-67)**.

Regarding claim 30, Park discloses the system as claimed in claim 21, wherein the CDMA-2000 system includes:
a base transceiver station (BTS) for transmitting the dummy pilot signal to the multimode terminal **(col. 4 lines 50-54 base station)**; and
a base station controller (BSC) for receiving the handover request message from the WCDMA system **(col. 4 lines 50-54 base station therefore must have a controller)**.

Regarding claim 31, Park discloses the system as claimed in claim 21, wherein the multimode terminal periodically searches a common pilot channel (CPICH) and receives the WCDMA signal level measurement message **(col. 2 line 6)**.

Regarding claim 32, Park discloses the system as claimed in claim 21, wherein, when the multimode terminal receives the handover command message, the CDMA-2000 modem of the multimode terminal is turned on and a WCDMA modem of the multimode

terminal is turned off **(col. 2 lines 38-41 release traffic channel and establish a new traffic channel, therefore turn off/on modem)**.

Regarding claim 33, Park discloses A WCDMA system for performing a handover from a WCDMA network to a CDMA-2000 network by means of a dummy pilot signal, the WCDMA system comprising:
a radio transceiver subsystem (RTS) for receiving a level value of the dummy pilot signal from a multimode terminal and transmitting the received level value of the dummy pilot signal **(col. 8 lines 29-49)**; and
a radio network controller for receiving the level value of the dummy pilot signal from the radio transceiver subsystem, determining whether to perform the handover for the multimode terminal, and transmitting a handover request message or a handover command message**(col. 8 lines 29-49)**.

Regarding claim 35, Park discloses the WCDMA system as claimed in claim 33, wherein, when the multimode terminal receives the handover command message, traffic is switched to a CDMA-2000 modem of the multimode terminal **(col. 2 lines 36-47 traffic switching)**.

Regarding claim 36, Park discloses the WCDMA system as claimed in claim 33, wherein the dummy pilot signal includes a WCDMA pilot signal **(col. 2 lines 4-11)**.

Regarding claim 37, Park discloses the WCDMA system as claimed in claim 33, wherein the dummy pilot signal includes a specific scramble code **(col. 2 lines 48-54)**.

Regarding claim 38, Park discloses the WCDMA system as claimed in claim 33, wherein, when the multimode terminal receives the handover command message, a CDMA-2000 modem of the multimode terminal is turned on and a WCDMA modem of the multimode terminal is turned off **(col. 2 lines 38-41 release traffic channel and establish a new traffic channel, therefore turn off/on modem)**..

Regarding claim 39, Park discloses A CDMA-2000 system for performing a handover from a WCDMA network to a CDMA-2000 network by means of a dummy pilot signal, the CDMA-2000 system comprising:
a base transceiver station (BTS) for transmitting the dummy pilot signal, which is a WCDMA pilot signal including a specific scramble code assigned in advance, to the multimode terminal **(col. 4 lines 50-54)**; and
a base station controller (BSC) for receiving a handover request message from a WCDMA system **(col. 4 lines 50-54)**.

Regarding claim 41, Park discloses the CDMA-2000 system as claimed in claim 39, wherein, when the multimode terminal receives a handover command message, traffic is switched to a CDMA-2000 modem of the multimode terminal **(col. 2 lines 38-41**

release traffic channel and establish a new traffic channel, therefore turn off/on modem).

Regarding claim 42, Park discloses the CDMA-2000 system as claimed in claim 39, wherein, when traffic is switched to a CDMA-2000 modem, the multimode terminal turns off a WCDMA modem mounted on an inside of the multimode terminal **(col. 2 lines 38-41 release traffic channel and establish a new traffic channel, therefore turn off/on modem)**.

Regarding claim 43, Park discloses the CDMA-2000 system as claimed in claim 39, wherein the multimode terminal periodically searches a common pilot channel (CPICH) and receives the dummy pilot signal **(col. 2 lines 4-11)**.

Regarding claim 44, Park discloses the CDMA-2000 system as claimed in claim 39, wherein, when the multimode terminal receives a handover command message, a CDMA-2000 modem of the multimode terminal is turned on and a WCDMA modem of the multimode terminal is turned off **(col. 2 lines 38-41 release traffic channel and establish a new traffic channel, therefore turn off/on modem)**.

Regarding claim 46, Park discloses the multimode terminal as claimed in claim 45, wherein, when the multimode terminal receives a handover command message from the WCDMA system, the controller loads the inter-modem switching program, controls

the CDMA-2000 modem to be turned on, and controls the WCDMA modem to be turned off **(col. 2 lines 38-41 release traffic channel and establish a new traffic channel, therefore turn off/on modem)**..

Regarding claim 47, Park discloses the multimode terminal as claimed in claim 45, wherein the dummy pilot signal includes a WCDMA pilot signal **(col. 2 lines 4-11)**.

Regarding claim 48, Park discloses the multimode terminal as claimed in claim 45, wherein the dummy pilot signal is transmitted from a CDMA- 2000 system located in a border area of a WCDMA network and a CDMA-2000 network (**col. 2 lines 12-21)**.

Regarding claim 49, Park discloses the multimode terminal as claimed in claim 45, wherein the dummy pilot signal includes a specific scramble code assigned in advance **(col. 2 lines 30-35)**.

Regarding claim 50, Park discloses the multimode terminal as claimed in claim 45, wherein the WCDMA system comprises:
a radio transceiver subsystem (RTS) for receiving the level value of the dummy pilot signal from the multimode terminal and transmitting the received level value of the dummy pilot signal**(col. 8 lines 29-49)**; and
a radio network controller for receiving the level value of the dummy pilot signal from the radio transceiver subsystem, determining whether to perform the handover for the

multimode terminal, and transmitting a handover request message or a handover command message**(col. 8 lines 29-49)**.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 2, 12, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park in view of **Kim (US 2003/0129981)**.

Regarding claim 2, Park discloses the method as claimed in claim 1 **(col. 1 lines 43-67)**, but fails to explicitly disclose the method wherein step (c) includes the steps of (c1)-(c3). **Kim** teaches a method for handoff between mobile communication systems of different generations which includes

(c1) transmitting the handover request message from the WCDMA system to a protocol converter when it is determined to perform the handover **([0017])**;

(c2) performing a protocol conversion for the handover request message at the protocol converter **([0017])**; and

(c3) transmitting the protocol-converted handover request message from the protocol converter to the CDMA-2000 system **([0017])**.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to explicitly incorporate the protocol conversion taught by Kim into the method disclosed by Park in order to conform each target system during the process of a handoff between communication systems of different generations **([0015])**.

Regarding claim 12, Park discloses the method as claimed in claim 11 **(col. 1 lines 43-67)**, but fails to disclose the method wherein step (e) includes the steps of (e1)-(e3). **Kim** teaches a method for handoff between mobile communication systems of different generations which includes:

(el) transmitting the handover request message to a protocol converter when it is determined to perform the handover at the WCDMA system **([0017])**;

(e2) performing a protocol conversion for the handover request message at the protocol converter**([0017])**and

(e3) transmitting the protocol-converted handover request message to the CDMA-2000 system at the protocol converter**([0017])**.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to explicitly incorporate the protocol conversion taught by Kim into the method disclosed by Park in order to conform each target system during the process of a handoff between communication systems of different generations **([0015])**.

Regarding claim 22, Park discloses the system as claimed in claim 21 **(col. 1 lines 43-67)**, but fails to disclose further comprising a protocol converter for converting a protocol of messages transferred between the WCDMA system and the CDMA-2000 system **(col. 2 lines 30-35)**.

Kim teaches a method for handoff between mobile communication systems of different generations which includes protocol conversion between two different systems **([0017]).** Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to explicitly incorporate the protocol conversion taught by Kim into the method disclosed by Park in order to conform each target system during the process of a handoff between communication systems of different generations **([0015])**.

5. Claims 9, 19, and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park in view of **Hunzinger (US 2001/0051524).**

Regarding claim 9, Park discloses the method as claimed in claim 1**(col. 1 lines 43-67)**, but fails to disclose the method wherein, at step (a), the multimode terminal periodically searches a common pilot channel (CPICH) and receives the WCDMA signal level measurement message. **Hunzinger** teaches handoff for CDMA systems in which a mobile station constantly searches a pilot channel of neighboring base stations for a pilot that is sufficiently stronger than a threshold value via a pilot strength measurement message **([0004])**. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to incorporate the method taught by

Hungzinger into the method disclosed by Park in order to effectively execute handoff through periodically searching for a more desirable handoff target.

Regarding claim 19, Park discloses the method as claimed in claim 11 **(col. 1 lines 43-67)**, but fails to disclose the method wherein, in step a), the multimode terminal periodically searches a common pilot channel (CPICH) and receives the WCDMA signal level measurement message **(col. 4 line 9)**.
Hunzinger teaches handoff for CDMA systems in which a mobile station constantly searches a pilot channel of neighboring base stations for a pilot that is sufficiently stronger than a threshold value via a pilot strength measurement message **([0004])**. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to incorporate the method taught by Hungzinger into the method disclosed by Park in order to effectively execute handoff through periodically searching for a more desirable handoff target.

Regarding claim 51, Park discloses the multimode terminal as claimed in claim 45, wherein the multimode terminal searches a common pilot channel (CPICH) and receives the CDMA-2000 signals and/or the WCDMA signals **(col. 1 lines 43-67; col. 2 lines 4-11)**. Park fails to disclose the searches are conducted periodically.
Hunzinger teaches handoff for CDMA systems in which a mobile station constantly searches a pilot channel of neighboring base stations for a pilot that is sufficiently stronger than a threshold value via a pilot strength measurement message **([0004])**.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to incorporate the method taught by Hungzinger into the method disclosed by Park in order to effectively execute handoff through periodically searching for a more desirable handoff target.

6. Claims 34 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park in view of **Reynolds (US 2003/0125028).**

Regarding claim 34, Park discloses the WCDMA system as claimed in claim 33, wherein the multimode terminal is capable of using both synchronous CDMA-2000 service and asynchronous WCDMA service **(col. 1 lines 7-15)** but fails to explicitly disclose that the multimode terminal uses at least two frequency bands. **Reynolds** teaches a mobile communication network with second generation and third generation radio access technologies which operate at least two frequencies **([0012])**. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to incorporate the system to include multiple frequencies taught by Reynolds into the system disclosed by Park in order to expand the operability of the mobile communication unit by being able to operate on at least two frequencies.

Regarding claim 40, Park discloses the CDMA-2000 system as claimed in claim 39, wherein the multimode terminal is capable of using both synchronous CDMA-2000 service and an asynchronous WCDMA service **(col. 1 lines 7-15)** but fails to explicitly disclose that the multimode terminal uses at least two frequency bands. **Reynolds**

teaches a mobile communication network with second generation and third generation radio access technologies which operate at least two frequencies **([0012])**. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to incorporate the system to include multiple frequencies taught by Reynolds into the system disclosed by Park in order to expand the operability of the mobile communication unit by being able to operate on at least two frequencies.

7. Claims 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over Park in view of **Reynolds,** further in view of **Zusuki (US 2004/0204038)**.

Regarding claim 45, Park discloses a multimode terminal capable of using both synchronous CDMA-2000 service and asynchronous WCDMA service **(col. 1 lines 7-15)** but fails to explicitly disclose that the multimode terminal uses at least two frequency bands. **Reynolds** teaches a mobile communication network with second generation and third generation radio access technologies which operate at least two frequencies **([0012])**. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to incorporate the system to include multiple frequencies taught by Reynolds into the system disclosed by Park in order to expand the operability of the mobile communication unit by being able to operate on at least two frequencies.

Both Park and Reynolds fail to explicitly disclose the multimode terminal comprising RF antenna, modem and a controller. **Zusuki** teaches a multimode wireless communication terminal which is comprised of:

an RF antenna for transmitting/receiving CDMA-2000 signals and/or WCDMA signals;

an RF transmission/reception unit for receiving and demodulating a dummy pilot signal sent from the RF antenna, and outputting a demodulated dummy pilot signal;

a pilot signal measurement unit for measuring intensity of the demodulated dummy pilot signal **([0042] [0014])**;

a WCDMA modem and a CDMA-2000 modem for processing a digital signal received from the RF transmission/reception unit and performing a call processing according to protocols respectively defined in a WCDMA standard and a CDMA-2000 standard;

a flash memory for storing an inter-modem switching program for performing a switching between the WCDMA modem and the CDMA-2000 modem according to a command from a WCDMA system**([0042] [0014])**; and

a controller for turning on the CDMA-2000 modem and controlling a level value of the dummy pilot signal to be transmitted to the WCDMA system, when the dummy pilot signal above a specific level is detected**([0042] [0014])**.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to incorporate the detailed components of a multimode terminal taught by Zusuki into the multimode terminal disclosed by Park in order to meet the demand for a terminal adapted to a plurality of communication standards so that the user can selectively use one of the communication modes or use wo modes in parallel independently of each other **([0007])**.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Jung (US6154653) discloses soft swap handoff method in a CDMA cellular system.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KATHY WANG-HURST whose telephone number is (571)270-5371. The examiner can normally be reached on Monday-Thursday, 7:30am-5pm, alternate Fridays, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Benny Tieu can be reached on (571)272-7490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/KATHY WANG-HURST/
Examiner, Art Unit 4173

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